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10/781,278

02/18/2004

S. V. Sreenivasan

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EXAMINER

LUK, EMMANUEL S

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/781,278
Filing Date: February 18, 2004
Appellant(s): SREENIVASAN ET AL.

Laura C. Wood
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/6/07 appealing from the Office action mailed 11/1/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,772,905

Chou

6-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-20 rejected under 35 U.S.C. 102(b) as being anticipated by Chou (US Patent No. 5,772,905).

Chou teaches the claimed template with the second state (14,16) and the first state (20), the template having a pattern with protrusions and recessions, the template being made from silicon dioxide (Col. 4, lines 47-49). The conformable material and its features are the properties of the product of the apparatus and do not provide further structural limitations of the apparatus.

(10) Response to Argument

Applicants have asserted that *Chou* does not teach the material transitioning between thin film layer 20 and mold layer 14. Applicants further argue concerning the different phase states of the conformable material. Lastly, Applicants have stated that *Chou* does not teach a template having features and/or pattern having dimensions compensating for a volumetric change of a conformable material.

In regards to the thin film layer and mold layers, the claimed structure is a template to form a recorded pattern on a substrate from a conformable material disposed between said template and substrate. The *Chou* reference does teach the template and substrate and conformable layer in between as seen in Figures 1A-1D. As stated in the rejection, the mold layer is stated as being made from silicon dioxide (Col. 4, lines 47-49) and this mold layer 14 is the template with the features 16 (or protrusions) provided being the original dimensions.

In regards to the conformable material transitioning between the phase states, this pertains to the product (the conformable material) of the apparatus, and this is also the layer worked upon, the thin film layer 20. This material or article worked upon by the apparatus is an intended use and does not limit apparatus claims. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666,667 (Bd. App. 1969). Thus, the phase states of the product in the operation of the apparatus is noted, but do not further limit the apparatus claims. See MPEP §2115 [R-2]. In addition, *Chou* teaches that the thin film 20 is PMMA (Col. 4, line 57) that is heated higher than the glass transition temperature (Col. 4, line 66), the mold 10 and features 16 are compressed against the thin film 20 and held there until the temperature dropped below the PMMA's glass transition temperature (Col. 5, lines 4-7), where the pattern 16 (of mold layer 14) can be fully transferred into the PMMA (Col. 5, lines 9-11).

In regards to the features and/or patterns having dimensions compensating for a volumetric change of a conformable material, as seen in Figures 1A-1D, the pattern of the template having dimensions such that would compensate for volumetric changes (Fig. 1B) by having the space necessary for such a change as seen by the gaps between the mold and is capable for compensating for any volumetric changes that the conformable material may undergo. Since there is no further structural limitations provided concerning the template for accommodating any volumetric changes that might occur by the conformable material which is a material worked upon by the apparatus, the mold layer (or template) of *Chou*, as seen in Figure 1B, would be able to compensate changes such as an expansion of the material with the gap provided. Thus, the claims are anticipated by the *Chou* reference.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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/Emmanuel S. Luk/

Emmanuel S. Luk

Conferees:

/Yogendra N Gupta/

Supervisory Patent Examiner, Art Unit 1791

/Anthony McFarlane/